

WHAT IS CLAIMED IS:

1. A semiconductor device comprising:
a semiconductor chip;
5 a mold resin sealing the semiconductor chip; and
a plurality of conductor leads extending from an inside of the mold resin to an outside thereof, each having a portion arranged inside the mold resin defining an internal terminal portion and a portion arranged outside the mold resin defining an external terminal portion, and an electrode of the
10 semiconductor chip and the internal terminal portion of the conductor lead being connected;
wherein the internal terminal portion of at least one of the conductor leads forms an inductance element portion, at least a part of which is narrower than the external terminal portion.
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2. The semiconductor device according to claim 1, wherein the inductance element portion has a meandering planar shape.
3. The semiconductor device according to claim 2, wherein the
20 conductor lead having the inductance element portion has an overlapping portion overlapping a lower surface of the semiconductor chip and is connected to the semiconductor chip in the overlapping portion.
4. The semiconductor device according to claim 3, wherein in the
25 overlapping portion of the electrode of the semiconductor chip and the conductor lead, the connection is made via an electrical conductor in a via hole formed in the semiconductor chip.
5. The semiconductor device according to claim 3, wherein the
30 overlapping portion of the conductor lead forms a die pad portion on which the semiconductor chip is mounted.
6. The semiconductor device according to claim 1, wherein the
35 conductor lead having the inductance element portion is connected to a source of a field-effect transistor or an emitter of a bipolar transistor formed in the semiconductor chip.

7. The semiconductor device according to claim 1, wherein the conductor lead having the inductance element portion is connected to a gate or a drain of a field-effect transistor or a base or a collector of a bipolar transistor formed in the semiconductor chip.

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8. The semiconductor device according to claim 1, wherein at least one of the conductor leads functions as a choke inductor or matching element.